



UNITED STATES PATENT AND TRADEMARK OFFICE

A
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,471	02/06/2001	Raul A. Bircann	89190.157900/DP-303637	4278

7590 02/24/2005
Delphi Technologies, Inc.
P.O. Box 5052
Mail Code 480414420
Troy, MI 48007

EXAMINER

BONDERER, DAVID A

ART UNIT	PAPER NUMBER
----------	--------------

3732

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/777,471

Applicant(s)

BIRCANN ET AL.

Examiner

D. Austin Bonderer

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-7 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-7 and 10-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-5, 10, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golovatai-Schmidt et al. in view of Law et al.

Golovatai discloses a valve comprising:

- Two pole pieces 21, 22;
- An electric core;
- A bearing 12 axially retained in one of the two pole pieces;
- The effective bearing diameter nearly identical as that of the shaft;
- A gap 7;
- An armature 110;
- A shaft 36;
- Gap filled with air 7;
- Where in the armature 8 does not contact the poles (col. 4 lines 40-50);
- The armature is frusto-conical; and
- Attachable to a device providing for linear actuation.

Golovatai lacks the use of a tapered section that is adjacent to both pole pieces. Law teaches a tapered section that is adjacent to both pole pieces. It would have been obvious to one of ordinary

Art Unit: 3732

skill in the art at the time of the invention to provide Golovatai with an extended tapered section as taught by Law in order for ease of actuation by causing less resistance.

As mentioned before the effective inner diameter of Golovatai is nearly identical as the shaft. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to a smaller bearing, since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

3. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golovantai/Law in view of Hussy et al.

Golovantai/Law discloses a valve. Hussy teaches the use of an EGR valve in a combustible engine. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the valve design of Golovantai/Law in the EGR Valve of Hussy as it is just intended use. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 1964 (1987). All the structural limitations of the valve have been met.

4. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golovatai/Law in view of Huber.

Golovatai/Law lack the use of a bearing that is 1.5 times the diameter of the rod. Huber teaches the use of a bearing that is 1.5 times the diameter of the rod. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Golovatai/Law with a bearing that is 1.5 times the diameter of the rod to better secure the rod.

Art Unit: 3732

5. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golovatai/Law/Hussy.

Golovatai/Law/Hussy lack the use of a bearing that is 1.5 times the diameter of the rod. Huber teaches the use of a bearing that is 1.5 times the diameter of the rod. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Golovatai/Law/Hussy with a bearing that is 1.5 times the diameter of the rod to better secure the rod.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3-7, 10-12, and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear as to what is frusto-conical. In the claims it is stated that the whole armature is and then just a section is. This renders the claims vague and indefinite.

8. The term "nearly identical as is possible" in claims 5 and 12 is a relative term which renders the claim indefinite. The term "nearly identical as is possible" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Withdrawal of Finality

9. The finality issued 5-7-04 is hereby withdrawn.

Art Unit: 3732

Response to Arguments

10. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Austin Bonderer whose telephone number is 571.272.4708. The examiner can normally be reached on Monday- Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver can be reached on 571.272.4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dab


KEVIN SHAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700